REMARKS

In the Office Action mailed on March 30, 2009, claims 1–26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over United States Patent No. 6,329,984 to Boss et al. (hereinafter "Boss") in view of United States Patent No. 6,343,313 to Salesky et al. (hereinafter "Salesky").

The Applicants hereby amend claims 1, 2, 4, 5, 8, 10, 13, 14, and 26. Support for the amendments to independent claims 1 and 14 and the claims dependent thereon may be found throughout the Applicants' specification as originally filed, for example at paragraphs [0040] and [0042] of their United States Patent Application Publication No. 2005/0235014 (the "'014 Publication"), and in the drawings as originally filed, such as in FIG. 3. Support for the amendments to independent claim 26 may also be found throughout the Applicants' specification as originally filed, for example at paragraph [0045] of the '014 Publication. No new matter is introduced by the claim amendments.

After entry of the claim amendments, claims 1–26 will be pending in this application. Accordingly, the Applicants respectfully request reconsideration of the rejection of claims 1–26 in light of the amendments made above and the arguments presented below, the withdrawal of the rejection, and the allowance of claims 1–26 in due course.

Amended Claims 1–26 are Patentable over Boss in view of Salesky

Claims 1–26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Boss in view of Salesky. The Applicants respectfully traverse this rejection as applied to the claims, as amended.

According to MPEP §§ 2141(III) and 2142, to establish a prima facie case of obviousness, the claimed invention must have been obvious to one of ordinary skill in the art. Moreover, "[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art." MPEP § 2143.03, quoting In re Wilson, 424 F.2d 1382, 1385 (C.C.P.A. 1970)(emphasis added) . In fact, as the Board of Patent Appeals and Interferences has confirmed, a proper obviousness determination requires that the Examiner make "a searching comparison of the claimed invention – including all its limitations – with the teaching of the prior art." Ex parte Wada et al., Appeal No. 2007-3733, at page 7, quoting In re Ochiai, 71 F.3d 1565, 1572 (Fed Cir. 1995)(emphasis in original). Thus, "obviousness requires a suggestion of

all limitations in a claim." Id., quoting CFMT, Inc. v. Yieldup Intern. Corp., 349 F.3d 1333, 1342 (Fed. Cir. 2003) and In re Royka, 490 F.2d 981, 985 (CCPA 1974)(emphasis added). The Applicants respectfully submit that neither Boss nor Salesky, alone or in proper combination, teaches or suggests all of the limitations of either one of Applicants' amended independent claims 1, 14, and 26, and, therefore, do not legally establish a prima facie case of obviousness of those claims or of claims 2–13 and 15–25, which depend therefrom.

Applicants' Amended Independent Claims 1 and 14

In various embodiments, Applicants' invention relates to methods and systems for synchronizing, in a bandwidth-adaptive manner, consumer node representations of a dynamic data set with a source node representation of the dynamic data set. See, e.g., Specification at para. [0001]. To enable the bandwidth-adaptive synchronization of the dynamic data sets, the methods and systems employ a communications service that receives communications from the source node and transmits communications to the consumer nodes. More specifically, the communications service receives, from the source node, both metadata information and data packets, which represent the current state of the source-node dynamic data set. The communications service then transmits selected metadata information and data packets to each consumer node based on the bandwidth of the connection between that consumer node and the communications service. See, e.g., Specification at para. [0040] and [0042].

For example, with reference to FIG. 3 of Applicants' specification, a communications service 300 receives metadata packets and data packets from a source node 100, and transmits to a consumer node 150 over a **high-bandwidth** connection every received metadata packet and data packet. In contrast, the communications service 300 transmits to a consumer node 150'' over a **low-bandwidth** connection only a subset of the metadata packets and data packets received from the source node 100. More specifically, as illustrated in FIG. 3, the high-bandwidth-connected consumer node 150 receives metadata packets 310, 320, and 330 and data packets 0, 1, 2, 3, 4, and 5, while the low-bandwidth-connected consumer node 150'' receives only metadata packets 310 and 330 and data packets 0, 1, 2, 4, and 5. The communications service 300 does not transmit metadata packet 320 or data packet 3 to consumer node 150''. See, also, Specification at para. [0042]. Nevertheless, because the consumer node 150'' receives, from the communications service 300, the most recent metadata packet that identifies

each data packet representing the current state of the source node 100 dynamic data set (*i.e.,* metadata packet 330 identifying data packets 0, 4, and 5), the consumer node 150'' is still able to correctly synchronize its data set with that of the source node 100. See, e.g., Specification at para. [0042].

As also illustrated in FIG. 3 of Applicants' specification, following the transmission of metadata packet 330 to consumer node 150'', communications service 300 transmits data packets 4 and 5 to consumer node 150''. In contrast, following the transmission of metadata packet 330 to consumer node 150, communications service 300 transmits only data packet 5 to consumer node 150, as data packet 4 was previously transmitted to the consumer node 150 (i.e., following the transmission of metadata packet 320). Thus, in order to communicate with the consumer nodes 150, 150'' in a bandwidth adaptive manner, **the communications service 300 may select, in response to the transmission of a common metadata packet to each consumer node 150, 150'', different sets of data packets for transmission to the different consumer node 150, 150''** – i.e., each set may include only those data packets responsive to the commonly transmitted metadata information that were not previously transmitted to the particular consumer node in question. See, also, Specification at para. [0042].

Applicants' amended independent claims 1 and 14 include limitations directed towards this type of bandwidth-adaptive communication between the communications service and the consumer nodes – i.e., limitations directed towards selecting and transmitting, in response to the transmission of **a common metadata packet** to different consumer nodes, **different sets of data packets** to the different consumer nodes. For example, Applicants' amended independent claim 1 recites, in part:

> "(e) selecting, by the communications service, first and second sets of the identified data packets responsive to the received metadata packet, the first and second sets being different from one another;
>
> (f) transmitting, by the communications service to a first consumer node, the metadata packet along with the first set of identified data packets; and
>
> (g) transmitting, by the communications service to a second consumer node having a different bandwidth connection with the communications service than the first consumer node has with the communications service, the metadata packet along with the second set of identified data packets,
>
> **whereby the first and second consumer nodes are transmitted a common metadata packet, but different data packets along therewith.**" (Emphasis added).

Similarly, Applicants' amended independent claim 14 recites, in part:

> "a communications service . . . configured to
>
> (a) select i) a first set of the identified data packets for transmission, along with the metadata packet, to a first consumer node, and ii) a second set of the identified data packets, different from the first set, for transmission, along with the metadata packet, to a second consumer node having a different bandwidth connection with the communications service than the first consumer node has with the communications service; and
>
> (b) transmit the metadata packet and the first and second sets of identified data packets **such that the first and second consumer nodes are transmitted a common metadata packet, but different data packets along therewith.**" (Emphasis added).

Applicants respectfully submit that, in stark contrast, neither Boss nor Salesky teaches or suggests these claim limitations. More particularly, Boss appears to describe "methods and apparatus for task based application sharing in a graphic user interface such as Windows®. A user, referred to as the host user, designates an application to be shared, referred to as a shared application. Another user at a remote location, referred to as the client user, shares control of the shared application. The shared application runs on and executes only on the host system." Boss at col. 2, ln. 32–38. As described in Boss, "[a]t **every** point where [the host system's] graphical device interface 102 makes a call to display driver 104, sensor application 107 inserts a jump instruction from display driver 104 to sensor application 107. **All** the information necessary for a given display driver to perform prompted line drawings and/or text drawings are retrieved and saved by sensor application 107 **for use in the application sharing process between client system 200 and host system 100**." Boss at col. 4, ln. 50–58 (emphasis added). "Sensor application 107 then formats a communication packet based upon the display information retrieved from graphical device interface 102 regarding the prompted drawings and transmits the communication packet over conferencing communication system 108 which transmits the communication packet to conferencing communication system 201 of client system 200." Boss at col. 4, ln. 64 – col. 5, ln. 4.

Because Boss describes transmitting **all** communication packets generated by a host communication system 108 to a client communication system 201, Boss necessarily can not, and in fact does not, teach or suggest communicating with a variety of client communication systems **in a bandwidth-adaptive manner,** as recited in Applicants' amended independent claims 1 and

14. More specifically, Boss does not teach or suggest transmitting a metadata packet along with a first set of identified data packets to a first consumer node and also transmitting the **same** metadata packet, but along with a second set of identified data packets (which are **different** than the first set of identified data packets), to a second consumer node. Instead, Boss's method of communication results in sending **all** data packets to **every** client node – i.e., sending **identical** sets of data packets to **every** client node.

For its part, Salesky appears to describe a "networked computer communications system." Salesky at Abstract. The communications system includes a "presenter client 12 [that] is connected to attendee client[s] 18 through a conference server 14 and data network 16." Salesky at col. 7, ln. 2–4 and at FIG. 1. "During a conferencing session, presenter client 12 takes periodic 'snap-shots' of the application screen image contained within a rectangular boundary determined by the presenter, breaks the screen shot into smaller rectangular blocks, [and] compares these blocks to information from a previous screen shot. A block that has changed is passed to conference server 14 after it has . . . received identification marking ('ID stamps')." Salesky at col. 7, ln. 35–43. "The presenter client identifies where the block is in the capture rectangle with a block-location ID stamp; it identifies the time with a time-stamp; it may also identify itself with an origin stamp, and provide other ID stamps as needed." Salesky at col. 7, ln. 57–61. "The changed blocks, however transformed, with ID stamps, are held on the conference server until they have been sent to all attendee client computers 18." Salesky at col. 7, ln 66 – col. 8, ln. 1.

Accordingly, Salesky describes sending a block of an application screen image from a presenter client computer 12 to a conference server 14. In doing so, the presenter client computer 12 may first transform the block and stamp it with ID information, such as location, time, and/or origin. The conference server 14 then sends the block to an attendee client computer 18. Because the data block is **stamped** with the ID information (e.g., metadata information), the two are **tied together** and transmitted together. In other words, for a given metadata stamp, the same data block is always transmitted. Accordingly, like Boss, Salesky fails to teach or suggest transmitting a metadata packet along with a first set of identified data packets to a first consumer node and also transmitting the **same** metadata packet, but along with a second set of identified data packets (which are **different** than the first set of identified data packets), to

a second consumer node, as recited in each one of the Applicants' amended independent claims 1 and 14.

Applicants' Amended Independent Claim 26

Applicants' amended independent claim 26 recites a method for synchronizing display data between a source node and a plurality of consumer nodes. Steps to the method include:

> "(b) receiving, by a communications service from the source node, first metadata information identifying a first at least one data packet representing a first state of local display data . . .
>
> (d) receiving, by the communications service from the source node, second metadata information identifying a second at least one data packet representing a second state of local display data . . . [and]
>
> (e) generating, by the communications service **by determining the difference between the first metadata information and the second metadata information,** third metadata information identifying a third at least one data packet." (Emphasis added).

Applicants respectfully submit that neither Boss nor Salesky teaches or suggests generating third metadata information through a comparison of first and second metadata information, as recited in Applicants' amended independent claim 26.

The Examiner appears to characterize Boss's conferencing communication system 108 as the communications service recited in Applicants' independent claim 26. But, even assuming this characterization to be accurate, Boss does not teach or suggest that the conferencing communication system 108 receives both first metadata information identifying a first at least one data packet and second metadata information identifying a second at least one data packet, and then generates third metadata information **"by determining the difference between the first metadata information and the second metadata information."** Instead, as described above, Boss' host conferencing communication system 108 simply receives communication packets from the sensor application 107 and transmits **all** of the communication packets to the client conferencing communication system 201. See, e.g., Boss at col. 4, ln. 50 – col. 5, ln. 4.

Similarly, for its part, while Salesky describes stamping a block of an application screen image with ID information, there is no suggestion or teaching in Salesky that such ID information may be generated **"by determining the difference between . . . first metadata**

information and . . . second metadata information," as recited by Applicants' amended independent claim 26.

For at least these reasons, the Applicants respectfully submit that Boss and Salesky, even if combined, fail to teach or suggest all of the elements present in each one of Applicants' amended independent claims 1, 14, and 26. Therefore, the Applicants respectfully submit that amended independent claims 1, 14, and 26, and claims 1–13 and 15–25, which depend therefrom, are patentable over Boss in view of Salesky.

CONCLUSION

In light of the foregoing, the Applicants respectfully submit that all of the pending claims 1–26 are in condition for allowance. Accordingly, the Applicants respectfully request reconsideration, withdrawal of all grounds of rejection, and allowance of all the pending claims 1–26 in due course.

If the Examiner believes that a telephone conversation with the Applicants' attorney would be helpful in expediting the allowance of this application, the Examiner is invited to call the undersigned at the telephone number identified below.

Respectfully submitted,

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